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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,277	10/21/2004	Hiromu Ueshima	100341-00054	6411
4372	7590	11/10/2005	EXAMINER	
ARENT FOX PLLC 1050 CONNECTICUT AVENUE, N.W. SUITE 400 WASHINGTON, DC 20036			PANOS, JEFFREY C	
			ART UNIT	PAPER NUMBER
			3713	

DATE MAILED: 11/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/511,277	<b>Applicant(s)</b> UESHIMA, HIROMU	
	<b>Examiner</b> Jeffrey C. Panos	<b>Art Unit</b> 3713	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 6-9 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 6-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/24/05; 10/21/04</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 6, 7, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lipps et al (U.S. Patent No. 5,741,182) in view of Ueshima et al (U.S. Patent No. 6,929,543) in further view of Malone (U.S. Patent No. 5,269,519) and Togami (U.S. Patent No. 6,394,897).

Regarding claim 1, Lipps et al shows a game machine that displays a ball on a monitor screen through execution of a game program in which a CPU player controlled by a computer program plays a match against said player, which can also be applied to tennis (Figure 1; column 2, lines 18-28; column 3, lines 6-13). In addition, Lipps et al teaches calculating the predicted return position of said ball from the CPU player, in this case, the pitcher, but can also be applied to tennis (column 3, lines 6-13). Lipps et al lacks and acceleration sensor taught by Ueshima et al (column 3, lines 45-53), however, Lipps et al does teach a transmission means capable of generating the acceleration signal (column 2, lines 51-57). Lipps et al also teaches a swing detection means which is capable of detecting if a racket was swung (column 2, lines 34-44). Togami teaches a judgment of current position of the player to be in strikable range and

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a ball striking position movement means for moving a ball striking position of said player (column 22, claim 5). Malone teaches a calculation for calculating an initial speed vector, which is capable of being obtained from the data obtained (column 4, lines 18-24). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lipps et al by providing the acceleration sensor means taught by Ueshima et al, judging whether a player can get to the ball or not and automatic movement to that position if the player cannot get there, and another calculation for speed of the ball after being hit so that there is less complexity in the game for the player to complete and draw away from the satisfaction of the game itself.

Regarding claim 6, Lipps et al shows a game machine that displays a ball on a monitor screen through execution of a game program in which a CPU player controlled by a computer program plays a match against said player, which can also be applied to tennis (Figure 1; column 2, lines 18-28; column 3, lines 6-13). In addition, Lipps et al teaches calculating the predicted return position of said ball from the CPU player, in this case, the pitcher, but can also be applied to tennis (column 3, lines 6-13). Lipps et al lacks an acceleration sensor taught by Ueshima et al (column 3, lines 45-53), however, Lipps et al does teach a transmission means capable of generating the acceleration signal (column 2, lines 51-57). Lipps et al also teaches a swing detection means which is capable of detecting if a racket was swung (column 2, lines 34-44). Togami teaches a judgment of current position of the player to be in strikable range and a ball striking position movement means for moving a ball striking position of said player (column 22, claim 5). Malone teaches a calculation for calculating an initial speed

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vector, which is capable of being obtained from the data obtained (column 4, lines 18-24). It would be Duplication of Parts (MPEP 2144.04) to have a second racket for the game to be two-player in that all the stated elements would be duplicated for that second player and racket input. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lipps et al by providing the acceleration sensor means taught by Ueshima et al, judging whether a player can get to the ball or not and automatic movement to that position if the player cannot get there, and another calculation for speed of the ball after being hit so that there is less complexity in the game for the player to complete and draw away from the satisfaction of the game itself.

Regarding claim 7, Lipps et al teaches all of the claimed invention except for specifically disclosing a tennis racket that includes an operating switch (column 5, lines 64-67) and a position movement means for moving said ball striking position on said monitor screen from forward position to backward position or from backward position to forward position, which is capable of being done by Lipps et al (column 3, lines 19-24). Lipps et al does teach a transmission means for a sensor, but Ueshima et al teaches the acceleration sensor. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lipps et al by providing the acceleration sensor for a more efficient way of reading the acceleration of the racket.

Regarding claim 8, Lipps et al teaches all of the claimed invention except for specifically disclosing that the a racket input device contained transmission means including an infrared light-emitting element for transmitting said acceleration correlation

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signal and said operation signal by means of infrared light (column 2, lines 51-57). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lipps et al so that a racket specifically contains the infrared transmission means to create less physical protrusions, in turn, lifting the satisfaction of the game.

Regarding claim 9, Lipps et al teaches all of the claimed invention except for said transmission means digital-modulates and transmits said acceleration correlation signal and said operation signal to said game machine; and said game machine digital-demodulates said acceleration correlation signal and said operation signal transmitted by said transmission means. Ueshima et al teaches a game processor in Figure 4 that has the acceleration sensor 46 connected to the A/D converter input, which it is then inherent that the processor will demodulate the digital signal after conversion so that it may read it. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lipps et al by providing the sensor conversion means taught by Ueshima et al so that the game processor will encompass the responsibility of converting and determining the data being sent in a quick manner through use of the A/D converter already built in.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 5,833,549 teaches a baseball bat practicing device and game capable for use with tennis racket.

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U.S. Patent No. 6,482,090 teaches ball trajectory and related positions.

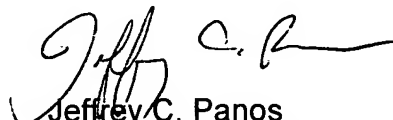
U.S. Patent No. 6,227,974 teaches an interactive gaming method with body movements mimicked on screen.

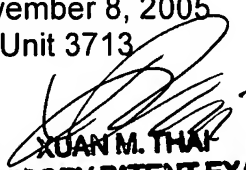
U.S. Patent No. 5,846,139 teaches ball trajectory and game simulation therewith.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey C. Panos whose telephone number is (571) 272-6136. The examiner can normally be reached on M-F 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan Thai can be reached on (571) 272-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jeffrey C. Panos  
November 8, 2005  
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XUAN M. THAI  
SUPERVISORY PATENT EXAMINER  
TC3700